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**LIQUID CRYSTAL DISPLAY DEVICE** (04-253033  
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**International Class (IPC Edition 5):**

- G02F-001/136
- G02F-001/1343
- H01L-027/12
- H01L-021/336
- H01L-029/784

**JAPIO Class:**

- 29.2 (PRECISION INSTRUMENTS--- Optical Equipment)
- 42.2 (ELECTRONICS--- Solid State Components)

**JAPIO Keywords:**

- R011 (LIQUID CRYSTALS)
- R096 (ELECTRONIC MATERIALS--- Glass Conductors)

**Abstract:**

**PURPOSE:** To improve the yield by forming a source electrode and a display electrode, and a drain electrode and a drain line integrally of ITO and electrically connecting them.

**CONSTITUTION:** Plural drain lines 44 and gate lines 35 are formed on a transparent insulating substrate and switching elements 45 of TFTs and display electrodes 50 are formed in matrix at their intersections. The display electrode 5 is formed from an amorphous silicon contact layer corresponding to a source and the drain line 44 is formed of the material of the display electrode 50 from an amorphous silicon contact layer corresponding to a drain. Therefore, the source electrode and display electrode 50, and drain electrode and drain line 44 are formed continuously of ITO, so a defect due to pattern deviation of photolithography, etc., is eliminated and the constitution part of the liquid crystal display device is prevented from deviating accompanying the subminiaturization of elements. (From: *Patent Abstracts of Japan*, Section: P, Section No. 1473, Vol. 17, No. 33, Pg. 97, January 21, 1993 )

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